

Appln No. 10/089,577
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agree that claims 42 and 43 are allowable for the same reasons as were advanced at the interview as to claims 1, 5, and 16; those reasons are set forth below and on the next-to-last page of the Remarks to the Amendment filed August 13, 2004.

In the course of the interview, questions were raised about the meanings of "array" and "deployed" as those words are used in applicant's claims. Both words appear in claim 1, as an example. As agreed at the interview, this paper clarifies the meanings of those words.

Claim 1, e.g., states that the defined pipe storage apparatus includes a pipe storage bin and horizontal pipe support members. The pipe support members are disposable¹ in the bin "for individually supporting plural horizontal lengths of drill pipe". As so supported, the pipe lengths define, or are located in, "an array of plural vertically spaced stationary layers and of plural lengths of drill pipe in each layer." As shown more fully below, the word "array" will be seen to be used as an alternate to (or in the sense of) "pattern", "grid", or "matrix". The pipe lengths can be put into or removed from that array. Once a pipe length is positioned on cooperating pipe support members to take its place in the array, that pipe length does not change its position relative to other pipe lengths either previously placed in the array or later put into place in the array. In distinction over Woolslayer et al '086, applicants' array of supported pipe lengths does not change shape or nature as pipe lengths are taken from or added to it; it is a cubical array. The layers of the array are stationary;

¹ The term "disposable" implies, correctly, that the pipe support members are movable. When and how they are moved is pertinent to the patentability of this invention over Woolslayer et al. '086.

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they do not move laterally as is required in the apparatus disclosed in Woolslayer et al '086.

"Array", a noun, is defined in the Oxford English Dictionary (Oxford University Press, 1971, as supplemented in 1987) in several ways, including as follows:

1. Order of position; arrangement in line or rank;
5. Order; orderly sequence;
6. a. A series of things exhibited or displayed in line or order;
b. An arrangement of quantities or symbols in rows and columns, = Matrix 6.

In that dictionary, the sixth definition of "matrix" is:

A regular arrangement of quantities or symbols.

Other definitions of "array" are presented in attachments A-D and F hereto; certain thesaurus entries involving "array" are attachment E hereto.²

The term "array" is used in applicants' specification in several places, notably as follows:

1. at page 6 (lines 2, 11, 12, 13, 16, 17, 19, 20 and 22), principally in the description of the positioning of pipe lengths in each storage bin on pipe support sleepers; see also page 9 at lines 1, 6, 23, and 34;
2. at page 21 (lines 10, 12 and 15) pertinent to the guide rollers 128 which cooperate with each bridge crane lift column 45.

In the text at page 6, e.g., "array" is used to describe the position at which pipe lengths are supportable, in plural layers

² The attachments to this paper are identified by letter in the lower right corner of each attachment.

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of plural pipe lengths in each layer, in each pipe storage bin; see Figs. 5 and 6, for example. Those pipe support positions are arranged in "x" number of positions in "y" number of vertically stacked stationary layers. Thus, the pipe storage positions (locations) are arranged in an x by y rectangular grid, pattern, or matrix. It is apparent, therefore, that, in respect to the positions which pipe lengths occupy when stored, "array" is used as a noun having the sense of a fixed pattern, arrangement, grid or matrix.

"Array" is used in respect to the pipe support member (also called "sleepers") and in respect to the bearings and guide for the bridge crane lift column as a noun having the sense of "set" or "group".

"Deployed" was another word whose meaning in the claims was discussed at the interview. Claim 1, e.g., states that there are selectively operable drive mechanisms connected to the (movable) pipe support members. Those mechanisms are "operable to move the members individually between deployed substantially fixed positions in which the support members are in the array (of positions where pipe lengths are stored) and horizontal retracted positions in which the support members are removed from the array" (parentheses added).

Attachments G-J hereto are dictionary definitions of "deploy", a verb. "Deploy" means to move a thing into a position of or for use. Thus, the deployed position of a pipe support member is a position in which it is useful for its intended purpose.

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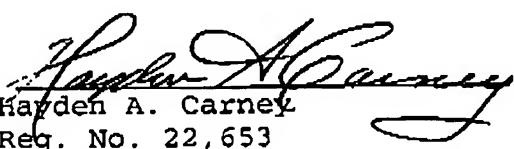
At the interview, the deployed and retracted positions of the pipe support members was explained with reference to applicants' Fig. 11.

The language of applicants' claims is clear and definite.

Claim 42 and 43, not specifically discussed during the interview, patentably define over Woolslayer et al '086 because the array of pipe lengths is a stationary array, and because the pipe lengths are raised from and lowered into the array directly from above the receiving notches in the pipe supports. In Woolslayer et al '086, the layers of pipe lengths must be moved laterally relative to each other so that (as shown in Fig. 5) a pipe length can be engaged and lifted from below by the support shoes 25 of the transfer arms 23 which move in a fixed vertical plane.

Claims 1-6, 17-35, and 42-18 are allowable.

Respectfully submitted,
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